In the Specification

Kindly replace paragraph [0001] with the following:

Technical Field

~~The present invention~~ This disclosure relates to a martensitic stainless steel pipe suitable for pipelines for natural gas and oil and particularly relates to an improvement in resistance to intergranular stress corrosion cracking occurring in heat-affected zones.

Kindly replace paragraph [0012] with the following:

~~The inventors~~ We further found that it is critical to prevent Cr carbide from being formed at prior-austenite grain boundaries ~~in order~~ to prevent IGSCC and the effective content C_{sol} of dissolved carbon that affects the formation of Cr carbide must therefore be reduced to less than about 0.0050% by mass in such a manner that the C content is extremely reduced or the content of a carbide-forming element, such as Ti, Nb, V, or Zr, having higher ability to precipitate carbides than that of Cr is increased.

Kindly replace paragraph [0013] with the following:

Thus, selected aspects ~~of the invention~~ include:

(1) A martensitic stainless steel pipe having a heat-affected zone with high resistance to intergranular stress corrosion cracking and contains less than about 0.0100% of C; less than about 0.0100% of N; about 10% to about 14% of Cr; and about 3% to about 8% of Ni on a mass basis, wherein the content C_{sol} defined by the following equation (1) is equal to less than 0.0050%:

$$C_{sol} = C - 1/3 \times C_{pre} \qquad (1)$$

where C_{pre} = 12.0 {Ti/47.9 + 1/2 (Nb/92.9 + Zr/91.2) + 1/3 (V/50.9 + Hf/178.5 + Ta/180.9) - N/14.0} or C_{pre} = 0 when C_{pre} < 0, where C represents the carbon content, the definition of C_{pre} appears later in equation (2),Ti represents the titanium content, Nb represents the niobium content, Zr represents the zirconium content, V represents the vanadium content, Hf represents the hafnium content, Ta represents the tantalum content, and N represents the nitrogen content on a mass basis.

(2) The martensitic stainless steel pipe specified in Item (1) further contains less than about 0.0100% of C; less than about 0.0100% of N; about 10% to about 14% of Cr; about 3% to about 8% of Ni; about 0.05% to about 1.0% of Si; about 0.1% to about 2.0% of Mn; about 0.3% or less of P; about 0.010% or less of S; about 0.001% to about 0.10% of Al; one or more selected from the group consisting of about 4% or less of Cu, about 4% or less of Co, about 4% or less of Mo, and about 4% or less of W; and one or more selected from the group consisting of about 0.15% or less of Ti, about 0.10% or less of Nb, about 0.10% or less of V, about 0.10% or less of Zr, about 0.20% or less of Hf, and about 0.20% or less of Ta on a mass basis, the remainder being Fe and unavoidable impurities, wherein the content C_{sol} defined by equation (1) is equal to less than 0.0050%.

(3) The martensitic stainless steel pipe specified in Item (2) further contains one or more selected from the group consisting of about 0.010% or less of Ca, about 0.010% or less of Mg, about 0.010% or less of REM, and about 0.010% or less of B on a mass basis.

(4) The martensitic stainless steel pipe specified in Item (1) further contains less than about 0.0100% of C; less than about 0.0100% of N; about 10% to about 14% of Cr; about 3% to about 8% of Ni; about 0.05% to about 1.0% of Si; about 0.1% to about 2.0% of Mn; about 0.03% or less of P; about 0.010% or less of S; about 0.001% to about 0.10% of Al; about 0.02% to about

0.10% of V; about 0.0005% to about 0.010% of Ca; and one or more selected from the group consisting of about 4% or less of Cu, about 4% or less of Co, about 4% or less of Mo, and about 4% or less of W on a mass basis, the remainder being Fe and unavoidable impurities, wherein the content C_{sol} defined by equation (1) is equal to less than 0.0050%.

(5) The martensitic stainless steel pipe specified in Item (4) further contains one or more selected from the group consisting of about 0.15% or less of Ti, about 0.10% or less of Nb, about 0.10% or less of Zr, about 0.20% or less of Hf, and about 0.20% or less of Ta on a mass basis.

(6) The martensitic stainless steel pipe specified in any one of Items (1) to (5) is suitable for line pipe uses.

(7) A welded structure comprising the martensitic stainless steel pipe specified in any one of Items (1) to (6), the pipe being welded to a member.

Kindly replace paragraph [0014] with the following:

Brief Description of the Drawings

FIG. 1 is an illustration schematically showing a simulated welding thermal cycle used in an example of ~~the present invention~~ our steel.

Kindly replace paragraph [0015] with the following:

FIG. 2 is an illustration schematically showing a test piece bent in a U-bend test, performed in an example of ~~the present invention~~ our steel, for determining resistance to stress corrosion cracking.

Kindly replace paragraph [0017] with the following:

Less Than 0.0100% C

Although C is an element that forms a solution in steel and enhances the strength of the steel, a large increase in the C content causes an increase in the hardness of HAZs, an occurrence of welding cracks, and/or a deterioration in the toughness of such HAZs. Therefore, the C content is preferably low. ~~In the present invention in order to~~ To prevent IGSCC from occurring in the HAZs, the C content is limited to less than 0.0100% because C forms Cr carbide, which precipitates to create Cr depleted zones. When the C content is 0.0100% or more, IGSCC can hardly be prevented from occurring in the HAZs. The C content is preferably less than 0.0050%.

Kindly replace paragraph [0020] with the following:

When the steel pipe does not contain Ti, Nb, Zr, V, Hf, nor Ta, the content C_{pre} has a negative value. ~~In the present invention, the~~ The content C_{pre} having a negative value is assumed to be zero and the effective content C_{sol} of dissolved carbon is therefore equal to the C content. [[;]] ~~hence~~ Hence, ~~in order~~ to satisfy the condition that the effective content of dissolved carbon is equal to less than 0.0050%, it is critical to adjust the C content to less than 0.0050%.

Kindly replace paragraph [0022] with the following:

10% to 14% Cr

Cr is a basic element for enhancing corrosion resistances such as CO_2 corrosion resistance, pitting resistance, and resistant to sulfide stress cracking. The Cr content must be 10% or more. However, when the Cr content is more than 14%, the ferrite phase is likely to be formed [[Π]] suppressing formation of martensitic microstructure. Therefore, in order to form a martensitic microstructure with high reproducibility, a large amount of an alloy element must be used. This causes an increase in material cost. Thus, the Cr content is limited to the range of 10% to 14%.

Kindly replace paragraph [0027] with the following:

0.03% or less P

P is an element that segregates at grain boundaries to reduce the strength of the grain boundaries and has a reverse effect on resistance to stress corrosion cracking. ~~In the present invention, the~~ The P content is preferably low. The allowance of the P content is 0.03% or less. Therefore, the P content is preferably limited to 0.03% or less. In view of hot workability, the P content is preferably 0.02% or less. Since an excessive decrease in the P content causes a large increase in refining cost and a decrease in productivity, the P content is preferably 0.010% or more.

Kindly replace paragraph [0042] with the following:

After being subjected to hot working and then ~~cooled~~ cooling at a cooling rate greater than an air-cooling rate, the seamless steel pipe having the above composition ~~have~~ has a martensitic microstructure. The seamless steel pipe subjected to hot working is preferably cooled to room temperature and then tempered. Alternatively, the seamless steel pipe subjected to hot working may be cooled to room temperature and then quenched in such a manner that the resulting pipe is reheated to a temperature higher than the A_{C3} transformation temperature and then cooled at a cooling rate greater than an air-cooling rate. The quenched seamless steel pipe is preferably tempered at a temperature lower than the A_{C1} transformation temperature.

Kindly replace paragraph [0044] with the following:

The martensitic stainless steel pipe is useful in manufacturing a welded structure by welding. Examples of the welded structure include oil or natural gas production facilities such as pipelines manufactured by girth-welding line pipes, chemical plant pipes such as risers and

manifolds, and bridges. The welded structure specified herein may be manufactured by welding the martensitic stainless steel pipes ~~of the present invention~~, welding the martensitic stainless steel pipe of the present invention to another type of steel pipe, or welding the martensitic stainless steel pipe to a member made of another material.